

Key Issues

Low-Level Radioactive Waste

Low-level waste is a byproduct of the beneficial uses of a wide range of radioactive materials. These include electricity generation, medical diagnosis and treatment, and various other medical processes.

[Fact sheet on disposal of low-level radioactive waste](#)

Where It Comes From

Low-level radioactive waste is a byproduct of the beneficial uses of a wide range of radioactive materials. These uses include electricity generation, medical diagnosis and treatment, biomedical and pharmaceutical research, and manufacturing.

Low-level waste produced at nuclear power plants consists of water purification filters and resins, tools, protective clothing and plant hardware, such as steam generators.

The U.S. Nuclear Regulatory Commission has classified low-level waste in three categories. Class A—the lowest hazard—comprises 95 percent of low-level waste. Classes B and C represent greater potential hazards, but nonetheless are safely managed. The NRC and the states govern the siting, operation and closure of all low-level waste disposal facilities.

Disposal in Licensed Facilities

Facility Design

Low-level waste disposal facilities isolate material from people and the environment in various ways. Among facility designs are: modular concrete canisters, underground vaults, aboveground vaults or engineered berms, or earth-mounded concrete bunkers. The disposal sites are diligently monitored to ensure that they comply with NRC requirements.

Three Facilities Operating

There are three NRC licensed low-level waste disposal facilities in the United States. One, the Hanford site in Richland, Wash., accepts waste from the Northwest and Rocky Mountain regions. The second facility, in Barnwell, S.C., accepts waste from all regions but the Northwest and Rocky Mountain regions. However, beginning in 2008, the Barnwell facility will accept waste only from the states of Connecticut, New Jersey and South Carolina. Both Hanford and Barnwell are licensed to accept Classes A, B and C waste. The third facility, Envirocare, in Clive, Utah, opened in 1995 and is licensed to accept only Class A waste.

Shipping Containers

Low-level waste is shipped to disposal facilities in containers designed to meet stringent NRC and U.S. Department of Transportation standards. No injuries or deaths have ever been caused by a release from low-level radioactive waste in a transportation accident.